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3/7/01

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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/733,507  
DATE: 12/21/2000  
TIME: 08:41:11

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3 <110> APPLICANT: Agriculture and Agri-Food Canada; The University of Saskatchewan  
5 <120> TITLE OF INVENTION: Cyclin Dependant Kinase Inhibitors as Plant Growth  
6 Regulators  
8 <130> FILE REFERENCE: 81601-3  
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/733,507  
C--> 11 <141> CURRENT FILING DATE: 2000-12-02  
13 <150> PRIOR APPLICATION NUMBER: CA 2,256,121  
14 <151> PRIOR FILING DATE: 1998-12-31  
16 <160> NUMBER OF SEQ ID NOS: 16  
18 <170> SOFTWARE: PatentIn Ver. 2.0  
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22 <212> TYPE: DNA  
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44 1  
46 gtg aga aaa tat aga aaa gct aaa gga att gta gaa gct gga gtt tcg 105  
47 Val Arg Lys Tyr Arg Lys Ala Lys Gly Ile Val Glu Ala Gly Val Ser  
48 5 10 15  
50 tca acg tat atg cag cta cgg agc cgg aga att gtt tat gtt aga tcg 153  
51 Ser Thr Tyr Met Glu Leu Arg Ser Arg Arg Ile Val Tyr Val Arg Ser  
52 20 25 30  
54 gaa aaa tca agc tct gtc tcc gtc gtc ggt gat aat gga gtt tcg tcg 201  
55 Glu Lys Ser Ser Ser Val Ser Val Val Gly Asp Asn Gly Val Ser Ser  
56 35 40 45  
58 tct tgt agt gga agc aat gaa tat aag aag aaa gaa tta ata cat ctg 249  
59 Ser Cys Ser Gly Ser Asn Glu Tyr Lys Lys Lys Glu Leu Ile His Leu  
60 50 55 60 65  
62 gag gag gaa gat aaa gat ggt gac act gaa acg tcg acg tat cga cgg 297  
63 Glu Glu Glu Asp Lys Asp Gly Asp Thr Glu Thr Ser Thr Tyr Arg Arg  
64 70 75 80  
66 gtg acg aag agg aag ctt ttt gaa aat ctg aga gag gag gag aaa gaa 345  
67 Val Thr Lys Arg Lys Leu Phe Glu Asn Leu Arg Glu Glu Glu Lys Glu

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71 Glu Leu Ser Lys Ser Met Glu Asn Tyr Ser Ser Glu Phe Glu Ser Ala
72          100          105          110
74 gtt aaa gaa tgg tta gat tgt tgt tgg agc ggg agg aaa acg atg gag 441
75 Val Lys Glu Ser Leu Asp Cys Cys Ser Gly Arg Lys Thr Met Glu
76          115          120          125
78 gag acg gtg acg gcg gag gag gag aag gcg aaa ttg atg acg gag 489
79 Glu Thr Val Thr Ala Glu Glu Glu Lys Ala Lys Leu Met Thr Glu
80 130          135          140          145
82 atg cca acg gaa tgg gaa att gaa gat ttt ttt gtg gaa gct gag aaa 537
83 Met Pro Thr Glu Ser Glu Ile Glu Asp Phe Phe Val Glu Ala Glu Lys
84          150          155          160
86 caa ctc aaa gaa aaa ttc aag aag aag tac aat ttc gat ttc gag aag 585
87 Glu Leu Lys Glu Lys Phe Lys Lys Lys Tyr Asn Phe Asp Phe Glu Lys
88          165          170          175
90 gag aag cca tta gaa gga cgt tac gaa tgg gta aag tta gag 627
91 Glu Lys Pro Leu Glu Gly Arg Tyr Glu Trp Val Lys Leu Glu
92          180          185          190
94 tgaagaagaa gaagaagttt atggtttttt ttttaacttt tttagatttta atatttcagg 687
96 gaataagtta attttatitt gttagatttg aaatataaga ttgttaggag gaattgtttt 747
98 agaagtaaga aattgcacag aaaaagaaga aagcttttta acagatttta gagccagaa 807
100 aagtcgtgtc ttttagctct acttttacct cttcttcgaa tcttgtgtat cttttagcat 867
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115 20 25 30
117 Ser Glu Lys Ser Ser Ser Val Ser Val Val Gly Asp Asn Gly Val Ser
118 35 40 45
120 Ser Ser Cys Ser Gly Ser Asn Glu Tyr Lys Lys Lys Glu Leu Ile His
121 50 55 60
123 Leu Glu Glu Glu Asp Lys Asp Gly Asp Thr Glu Thr Ser Thr Tyr Arg
124 65 70 75 80
126 Arg Val Thr Lys Arg Lys Leu Phe Glu Asn Leu Arg Glu Glu Glu Lys
127 85 90 95
129 Glu Glu Leu Ser Lys Ser Met Glu Asn Tyr Ser Ser Glu Phe Glu Ser
130 100 105 110
132 Ala Val Lys Glu Ser Leu Asp Cys Cys Ser Gly Arg Lys Thr Met
133 115 120 125
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136 130 135 140
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139 145 150 155 160

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156 aagaaagaaat taatacatct ggaaggagaa gataaagatg gtgacactga aacgtcgaag 180
157 tatcgacggg gtacgaagag gaaqcttttt gaaaatctga gaagaggaga gaaagaagaa 240
158 ttaagtaaat ccattggaga ttattcatcg gaatttgaat cggcgggtta agaactcgta 300
159 gattgttctl gtagcgggag gaaaacgatg gaggagacgg tgacggcgga ggaggagga 360
160 aagggcgaat tgatgacgga gatgccaaag gaatcggaaa ttgaagattt tttgtggaa 420
161 gctgaagaaac aactcaaaag aaaaattcaag aagaagtaca atttcgattt cgaagaaggag 480
162 aagccattag aagagcgtta cgaatgggta aagtttagag gaagaagaag aagaagttta 540
163 tgggtttttt ttaactttt tagattttta ttttcaggg aaraagttta ttttattttg 600
164 ttgatttqga aatataagat ttgtaggagg aatgttttta gaaqlacgaa attgcacaga 660
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168 <211> LENGTH: 443
169 <212> TYPE: DNA
170 <213> ORGANISM: Arabidopsis thaliana
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174 gtctccgtcg tcqgtgataa tggagaattt ttracggaa ttggaatcgg cggttaaaag 120
175 atcgttagat tgtttgttga ggggagagaa aacgatggaq gagacggtga cggcggagga 180
176 ggaggagaag gcaaaattga tgacggagat gccaaaggaa tcggaaattg aagatttttt 240
177 tgtggaagct gagaacaac tcaagaagaa attcaagaag aagtacaatt tcgatttcga 300
178 gaaggagaag ccattagaag gacgttacga atgggtaaa ltagagtgaa gaagaagaag 360
179 aagtttatgg tttttttttt aactttttta attttaatat ttcagggaat aagtttaa' tt 420
180 tttttgttg atttgaaat ata                                     443
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184 <211> LENGTH: 377
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186 <213> ORGANISM: Arabidopsis thaliana
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190 agaattaaat aaatccatgg agaattattc atcggaattt gaatcggcgg ttaaaqaatc 120
191 gtttagattgt tgtgttagcg ggaggaaaac gatggaggag gaggaggaga aggcgaaatt 180
192 gatgacggag atgccaaagg aatcggaat tgaagattt tttgtgggag ctgagaaaca 240
193 actcaagaa aaattcaaga agaagtacaa tttcgatttc gagaaggaga agccattaga 300
194 aggacgttac gaatgggtta agttagagtg aagaagaaga agaagtttat ggtttttttt 360
195 ttaacttttt agatttt                                     377
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199 <211> LENGTH: 755
200 <212> TYPE: DNA
201 <213> ORGANISM: Arabidopsis thaliana

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231 ctctccgttg aagaacagtg tcaaatcgaa gaagaagatt cgtcgggttc gtgttgttct 180
233 acatcggaag agaatacgaa acggagaatc gaatttctag atcttgagga aaataacggt 240
235 gacgatcgtg aaacagaaac gtctgtgatt tacgatgatt tgaataagag tgaggaaatc 300
237 atgaacatgg attctcttc qgtggctgtt gaaqatqta agtctcgcgc caqglttaag 360
239 aaqagttctc atgagacggt gaaggaaact qagttagaag acttttttca ggtcgcgga 420
241 aagatcttcc ggaataaagt gttggaatgt tctatgaagt ataacttcca ttccgagaaa 480
243 gatgagccac ttggtggagg aagatacgag tgggttaaat tgaalccatg aagaagacga 540
245 tgatgataat gatgatcatt gttttacca aagtacttat tatttctctt ctgtaataat 600
247 ctttgccttg attttctctt taacaaaatc caaatqtaga tatcttctc tcgaataatc 660
249 aataacatgt aattcaactt ttgtttgtac ttctctgagg taattaatta gattcgtgtt 720
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264 cttaatgatt ctctctgatt atcaccggac tctcatgacg tcatcgtctt cgcggtttca 180
266 tcttcttccg ttgctctctc ggcggtctta gctctgag agtqttccgt taccatcggt 240
268 ggaagagaaa tlgatcagtc ctcgagtc agctccggtt gtttcaacac tgaatcgaaa 300
270 gaaatcgaga aagaacagtt gtctgttggg tgaatctctg aggatcctca aatcgaaacc 360
272 gaaaccgaaa cctcaacatt catcaccagc aatttcagaa aagagacgag tccagtgagt 420
274 gaggglttgg gagaacgac aacagaaatg gaatcalcat cgcgaacgaa gagaanaaaa 480
276 cggggggtga ggaagactcc aacggcggcg gagattgagg atttgttctc ggcgctagag 540
278 agtcaagacg ataagaagaa gcaattcata gaaaagtaca acttcgatat tgcgaatgac 600
280 gaaccgcttg aaggctccta caagtgggat cgactttaag ccatacaaaa gcaaatacca 660
282 tccatgaaga agacaaaaa aaaaatagglt ttgttttctg ttgttaacat ttccacttgt 720
284 acagctctag tctatttctc tttaaaaacc tatgttacta qttctgtaca acaaaaaaaa 780
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290 <211> LENGTH: 642
291 <212> TYPE: DNA
292 <213> ORGANISM: Arabidopsis thaliana
294 <400> SEQUENCE: 8
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299 ttaagctcac cgaacgagaa tctttctct tcttctctt ctctctggc ttactcgggt 180
301 tcatgattcc gaggtttctg ctccgtcgcg ttatctgaag aagaagacga tcatctaaac 240
303 tcaagcatca gctctggttg ttccagcagc gaaactaacg aaatcgtac tctcttcca 300
305 ttltcagatc tggaggtcca tgaalctcc gaaaccgaaa tctcaacgtt actcaccac 360
307 aatttcagga aacagggaat ttcatcaagc gagaatcttg gagaacagc agaatgagc 420
309 tccgagacga cggagatgag agatcagaga aagacggaga agaagaagaa gatggaaaa 480
311 tcaacgagc aggcagagct tgatgacttt ttctcggcg cgagagata cgaacagaaa 540
313 cgattcacag aaaagtacaa ctacgacatc gtcaatgata cgcgcgttga aggtcgttac 600
315 cagtgggtta gtctgaaccc ttgaagacca tggagaaca aa 642

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Input Set : A:\81601-3.pct.seqlist.txt  
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328 aacagtctcg qttttgaatc aagacacagc acaagggaag gcacgccttg taactttgtt 180
330 gaggatattg agatcatagt tacaccaggg tctagcacya ggtcgatgtg cagaqcaacc 240
332 aaagagtaca caagggaaca agataacgtg atcccgacca ctagtgaat ggaggagttc 300
334 ttgcatatg cagagcagca gcaacagagg ctattcatgg agaagtacaa ctctgacatt 360
336 gtgaatgata tccccctcag cggacgttac gaatgggtgc aagtcaaac atgaagttca 420
338 aaaggnaaca gctccaaaag acatgggtgt aqtttagaga attgtgatgg agtttaacag 480
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356 35 40 45
358 Ser Ser Cys Ser Gly Ser Asn Glu Tyr Lys Lys Lys Glu Leu Ile His
359 50 55 60
361 Leu Glu Glu Glu Asp Lys Asp Gly Asp Thr Glu Thr Ser Thr Tyr Arg
362 65 70 75 80
364 Arg Gly Thr Lys Arg Lys Leu Cys Glu Asn Leu Arg Glu Glu Glu Lys
365 85 90 95
367 Glu Glu Leu Ser Lys Ser Met Glu Asn Tyr Ser Ser Glu Phe Glu Ser
368 100 105 110
370 Ala Val Lys Glu Ser Leu Asp Cys Cys Cys Ser Gly Arg Lys Thr Met
371 115 120 125
373 Glu Glu Thr Val Thr Ala Glu Glu Glu Glu Lys Ala Lys Leu Met Thr
374 130 135 140
376 Glu Met Pro Thr Glu Ser Glu Ile Glu Asp Phe Phe Val Glu Ala Glu
377 145 150 155 160
379 Lys Gln Leu Lys Glu Lys Phe Lys Lys Lys Tyr Asn Phe Asp Phe Glu
380 165 170 175
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383 180 185 190
386 <210> SEQ ID NO: 11
387 <211> LENGTH: 176
388 <212> TYPE: PRT
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VERIFICATION SUMMARY  
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TIME: 08:41:12  
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L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date